A Homebrew Gin Pole

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The Amateur Radio operators of 40-50 years ago made much of their own equipment. Since then, the leading edge of technology has progressed so quickly that most of us today are not capable of designing and assembling a modern transceiver. Nevertheless, for various reasons many of us still have the desire to design and build some meaningful parts of our station. For me, the reasons have been both the challenge of building and the cost savings realized by the do-it-yourself approach.

One direction that we can go is in the construction of antennas and towers. For example, there are several fine software packages that will allow the user to design high-performance antennas. However, once the antennas are designed, the tower still has to be erected and the antennas installed on it. For this, we usually need a gin pole. The purpose of this article is to show how one can be built and, in the process, how the builder can realize a substantial cost savings.

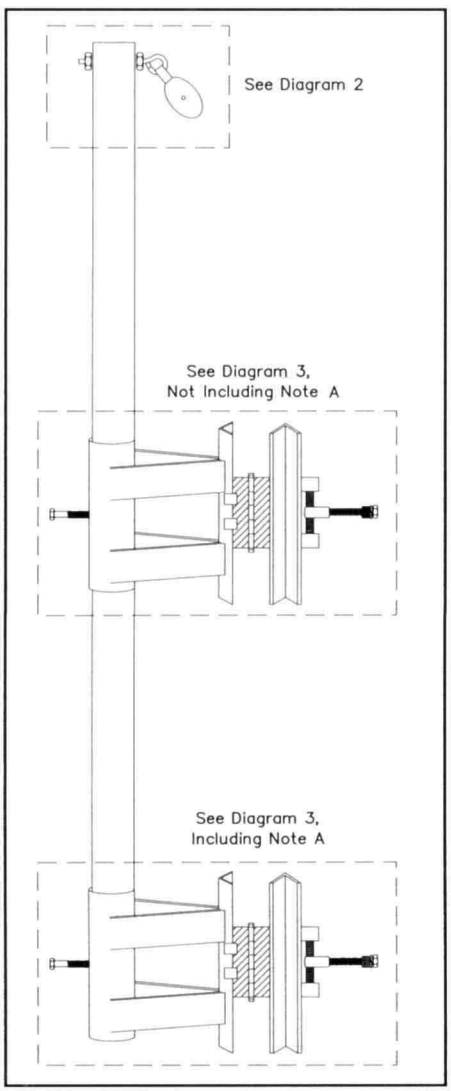


Figure 1

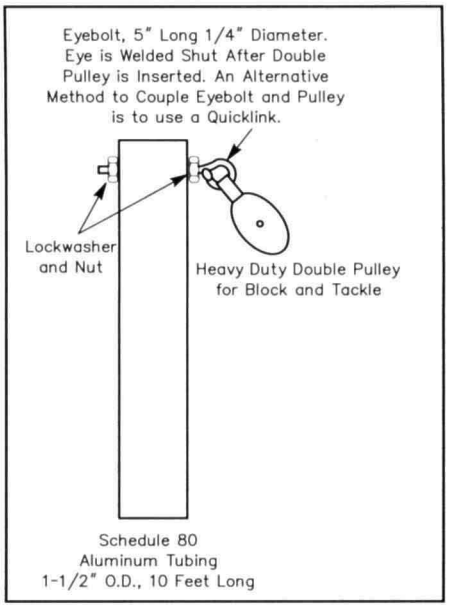
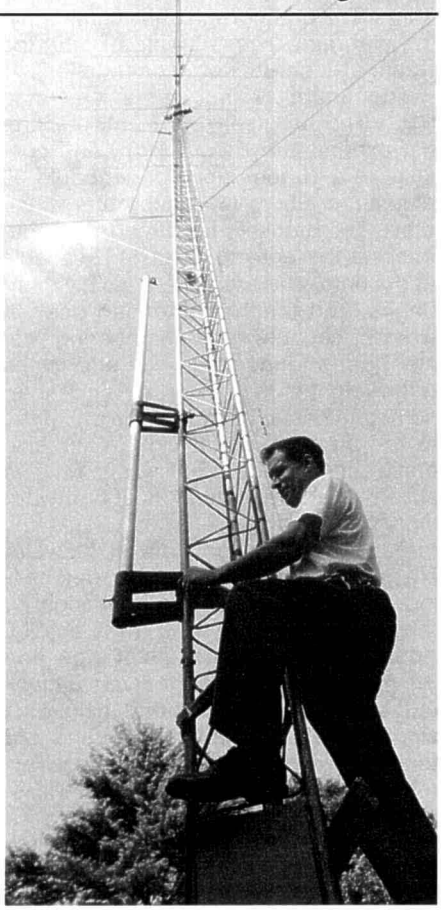


Figure 2



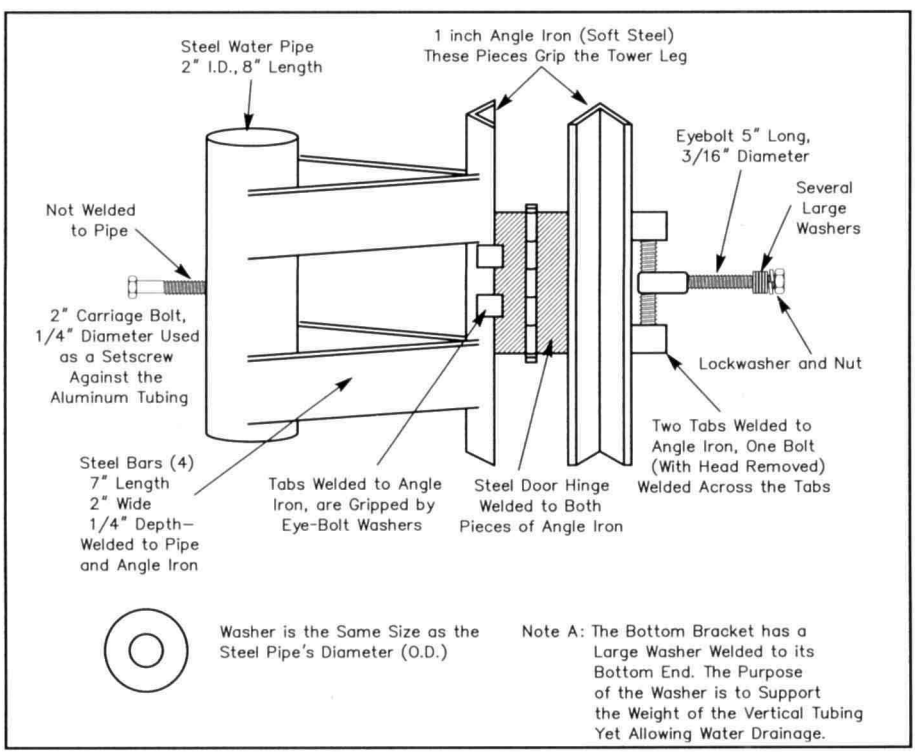


Figure 3

This particular gin pole is modelled after one built a few years ago by my friend Bob De Costa (KA1GG), now deceased. Bob was a real master in the design and fabrication of mechanical items. The photograph and accompanying diagrams in this article explain the rather straight-forward construction.

The entire project costs less than $100. The pole itself represents the largest expenditure (about $80), and consists of a 10-foot piece of schedule 80 aluminum tubing (1.5 inch outer diameter). The brackets were made of whatever scrap steel and pipe I had available at the time, and are quite possibly over-engineered for their intended use. (A word of caution: over-engineering with steel parts tends to quickly add to the total weight of the gin pole. Remember, someone has to carry it to the top of the tower!) I cut the metal with an abrasive metal cutting blade in a circular saw. One such blade, available at most hardware stores, costs about $10 and should last through the entire job. I did all the welding myself using a small arc welder, having received my welding education by taking a course at a local trade school. Add the appropriate length of rope, and the gin pole is ready to go! I use a block and tackle arrangement that includes a single pulley, a double pulley, and 320 feet of 3/8 inch diameter hemp rope. This rope is relatively inexpensive, but will rot if exposed to prolonged moisture.

I have now used this pole in raising several towers, including 100 feet of Rohn 45 clone. I don't know the exact weight of those tower sections but I estimate them to be about 100 pounds each. I have also used it for raising at least six Yagi antennas up a 45-degree tram line. The pole has not suffered any damage from these jobs, other than the loss of one of the bracket set screws. (The observant viewer will see that one is missing in the photo!)

When using any gin pole, always take great care for the safety of all people in the vicinity of the project. Each time it is bracketed to the tower, make absolutely sure it is tightened properly and will not slip under load. It is also important to keep an eye on the pole to make sure it is not showing any signs of bending when lifting tower sections or antennas. There is some flexibility in the aluminum tubing, but it should be minimal. I am not a mechanical engineer, so I can only offer anecdotal evidence of the strength of the particular gin pole as I built it. Remember, "An ounce of prevention is worth a pound of cure."

My thanks to my good friend Arthur Fontes (N1VEG), who took several photographs of the gin pole and then developed the film for this article. ■

Shorts

Art Linkletter Move Over: *Wives Say the Darndest Things!*

We've all been frustrated trying to explain to our spouses what goes on during a contest. I recently attended a YCCC Contest University at N6BV's QTH during the WAE SSB contest. It was quite informative and I managed to pick up a number of pointers that will improve my score in future SSB contests. When we were through, Dean presented us each with a tape recording of our work. So when I got home I played the tape for my wife, explaining to her what was going on. Most of the tape recording consisted of my voice calling CQ using N6BV's call with standard phonetics. After a few minutes she said, "Oh, so your next contest is November 6th?"—*Dave LeDuc, K1EPJ*

Contest Politics

I drove over to the WRTC 96 event with my "IARU boss," VE3CDM, the President of IARU Region 2. Tom knows an awful lot more about contests now than he did before he went to the event, and somehow I have a feeling that any attempt in a future IARU Conference to propose a "Contest Free Zone" on the bands will quickly be relegated to the trash can. Ham radio politicians were much in evidence at WRTC, reflecting the importance we as contesters have in organized Amateur Radio out of all proportion to our numbers. Many ham radio politicians are contesters in their own right — need I even mention K1ZZ as an example? Dave and wife Linda, KA1ZD, were there. Chief Judge K4VX is an ARRL Director, judge W7RM is a former ARRL Director, competitor YT1AD is the President of Yugoslavia's SRJ, judge PY5EG is the President of Brazil's LABRE, referee UA6HZ is the immediate past President of Russia's SRR, etc. One might even venture this thought on the future of Amateur Radio: "As goes contesting, so goes ham radio."—*From an internet posting by Fred Laun, K3ZO.*

NEWS FLASH

September 23, Pittsburgh, PA. There are reports of a massive traffic tie-up today. Millions of so-called "hams" — crazed radio men from all over the country — are reported descending on an office of the Mellon Bank. Seen clutching weirdly colored papers with massive lists of strange coded letter combinations, these hams have created grid-lock for over 17 miles in all directions. SWAT teams have been brought in from as far away as Pensacola and Durban to quell the disturbance. Many of the victims overrun by the hams were dazed and murmuring "Vanity, vanity, all is vanity." The hams themselves wore crazed expressions and could be part of a massive new underground cult, the 610 Movement. Further reports indicate that extensive, redundant commentaries on Vanity Calling now clog internet chat lines and reflectors. More later.—*K4VUD*

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